6GW6

Beam Power Tube

GENERAL DATA

Electrical:

Heater, for Unipotential Cathode:			
Voltage (AC or DC)	6.3 ± 10%		volts
Current at 6.3 volts	1.2		amp
Mu-Factor, Grid No.2 to Grid No.1 for plate volts = 150, grid-No.2 volts = 150, grid-No.1 volts = -22.5	4.4		
Direct Interelectrode Capacitances (Approx.):[a]			
Grid No.1 to plate	0.5		μμf
Grid No.1 to cathode & grid No.3, grid No.2, and heater	17		μμf
Plate to cathode & grid No.3, grid No.2, and heater	7		μμf

Characteristics, Class A_1 Amplifier:

Plate Voltage	60	250	volts
Grid-No.2 Voltage	150	150	volts
Grid-No.1 Voltage	0	-22.5	volts
Plate Resistance (Approx.)	-	15000	ohms
Transconductance	-	7100	μmhos
Plate Current	390[b]	70	ma
Grid-No.2 Current	32[b]	2.1	ma
Grid-No.1 Voltage (Approx.) for plate ma. = 1	-	-42	volts

Mechanical:

Operating Position	Any
Maximum Overall Length	4-1/4"
Seated Length	3-1/2" ± 3/16"
Diameter	1.438" to 1.562"
Bulb	T12
Cap	Skirted Miniature (JEDEC No.C1-3)
Base	Short Medium-Shell Octal 6-Pin with External Barriers, Style B, Arrangement 2 (JEDEC No.B6-122)
Basing Designation for BOTTOM VIEW	6AM

Pin 2 - Heater
Pin 3 - No Connection
Pin 4 - Grid No.2
Pin 5 - Grid No.1
Pin 7 - Heater
Pin 8 - Cathode, Grid No.3
Cap - Plate

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HORIZONTAL-DEFLECTION AMPLIFIER

Maximum Ratings, *Design-Maximum Values:*

For operation in a 525-line, 30-frame system[c]

DC PLATE-SUPPLY VOLTAGE	770	max.	volts
PEAK POSITIVE-PULSE PLATE VOLTAGE[d]	6500	max.	volts
PEAK NEGATIVE-PULSE PLATE VOLTAGE	1500	max.	volts
DC GRID-No.2 (SCREEN-GRID) VOLTAGE	220	max.	volts
DC GRID-No.1 (CONTROL-GRID) VOLTAGE	-55	max.	volts
PEAK NEGATIVE-PULSE GRID-No.1 VOLTAGE	330	max.	volts
CATHODE CURRENT:			
Peak	550	max.	ma
Average	175	max.	ma
GRID-No.2 INPUT	3.5	max.	watts
PLATE DISSIPATION[e]	17.5	max.	watts
PEAK HEATER-CATHODE VOLTAGE:			
Heater negative with respect to cathode	200	max.	volts
Heater positive with respect to cathode	200[f]	max.	volts
BULB TEMPERATURE (At hottest point on bulb surface)	240	max.	°C

Maximum Circuit Values:

Grid-No.1-Circuit Resistance:			
For grid resistor-bias operation	1	max.	megohm

[a] Without external shield.

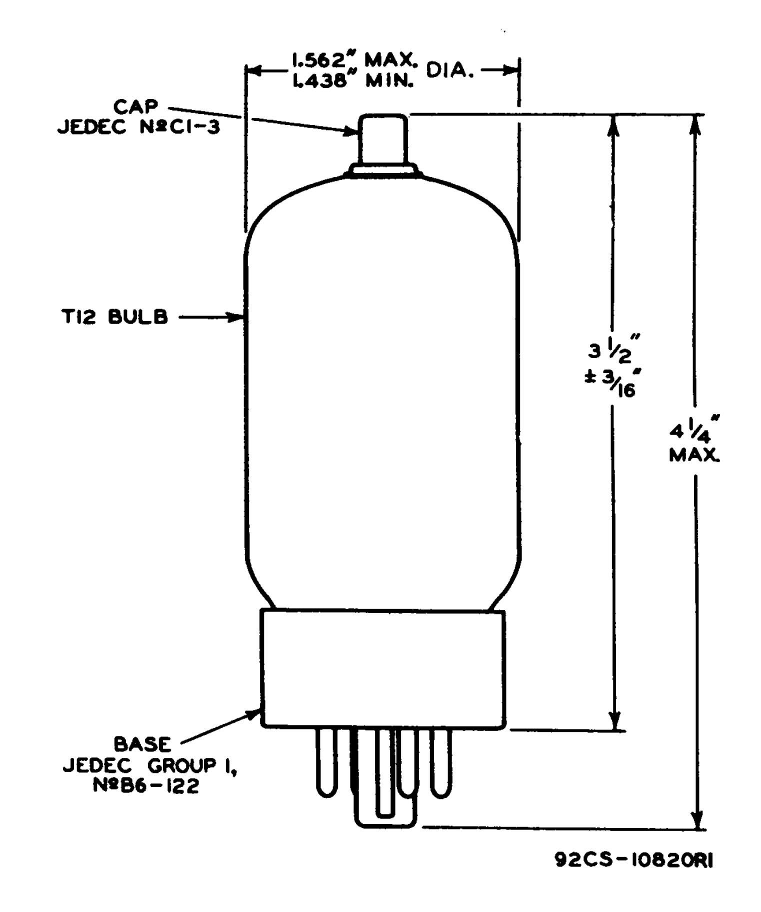
[b] This value can be measured by a method involving a recurrent wave form such that the maximum ratings of the tube will not be exceeded.

[c] As described in "Standards of Good Engineering Practice Concerning Television Broadcast Stations," Federal Communications Commission.

[d] This rating is applicable where the duration of the voltage pulse does not exceed 15 per cent of one horizontal scanning cycle. In a 525-line, 30-frame system, 15 per cent of one horizontal scanning cycle is 10 microseconds.

[e] An adequate bias resistor or other means is required to protect the tube in the absence of excitation.

[f] The dc component must not exceed 100 volts.


1.562" MAX.
1.438" MIN.
DIA.
CAP
JEDEC Nº C1-3
T12 BULB
3 1/2"
± 3/16"
4 1/4"
MAX.
BASE
JEDEC GROUP 1,
Nº B6-122
92CS-10820R1

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AVERAGE CHARACTERISTICS

Ef=6.3 VOLTS
GRID-Nº2 VOLTS=150

GRID-Nº2 MILLIAMPERES (IC2)
150 125 100 75 50 25 0

GRID-Nº1 VOLTS EC1=0
-5
-10
-15
-20
-25
Ib
IC2
EC1=0

PLATE VOLTS
0 100 200 300

450 400 350 300 250 200 150 100 50 0
PLATE MILLIAMPERES (Ib)

92CM-10859